

## WHAT IS CLAIMED IS:

1. A heat sink comprising fins formed by winding metal wire into a coil shape having coil elements aligned in flat with displacement so as to form air gaps and contact parts, and a thermal conductive base plate retaining said fins.
2. The heat sink set forth in claim 1, featured by thermal coupling between the contact parts of said coil.
3. The heat sink set forth in claim 1 or claim 2, wherein said metal wire coil is formed of combinations of right-handed and left-handed coils displaced mutually.
4. The heat sink set forth in claim 1 or claim 2, wherein said fins are disposed relative to said base plate in a standing manner.
5. The heat sink set forth in claim 3, wherein said fins are disposed relative to said base plate in a standing manner.
6. The heat sink set forth in claim 4, wherein said fins are disposed in a groove formed in said base plate in a standing manner.
7. The heat sink set forth in claim 5, wherein said fins are disposed in a groove formed in said base plate in a standing manner.

8. The heat sink set forth in claim 6, wherein said fins are thermally coupled to said groove in said base plate.

9. The heat sink set forth in claim 7, wherein said fins are thermally coupled to said groove in said base plate.

10. The heat sink set forth in claim 1 or claim 2, wherein the flat surfaces of said fins are arranged parallel to said thermal conductive base plate.

11. The heat sink set forth in claim 3, wherein the flat surfaces of said fins are arranged parallel to said thermal conductive base plate.

12. The heat sink set forth in claim 10, wherein void spaces are formed between said fins and said base plate and filled with ferrite powder.

13. The heat sink set forth in claim 11, wherein void spaces are formed between said fins and said base plate and filled with ferrite powder.

14. A heat sink comprising fins of metal wire coil formed of coil elements made by densely winding a flat metal wire.

15. A sheet-like heat sink comprising a base film with agglutinant, and fins of metal wire coil formed of coil elements made by densely winding a flat metal wire on said base film.

16. The heat sink set forth in claim 14 or claim 15, wherein said metal wire coil is formed of combinations of right-handed and left-handed coils displaced mutually.

17. The heat sink set forth in any of claim 1, 2, 14 and 15, wherein a coating film containing ferrite is formed on the surface of said metal wire.

18. The heat sink set forth in any of claim 1, 2, 14 and 15, wherein said metal wire is made of aluminum or aluminum alloy and subjected to surface treatment with anodic oxide film.

19. The heat sink set forth in any of claim 1, 2, 14 and 15, wherein said metal wire is made of anticorrosion metal.

20. The heat sink set forth in any of claim 1, 2, 14 and 15, wherein a heat-dissipative coating film having heat dissipation capacity is formed on the surface of said metal wire.